

**Policies and Procedures**  
**relating to:**  
**Ground Operations**

# Introduction

There are several different causes of ground noise that can come from aircraft operations at Birmingham Airport. The causes can include aircraft using reverse thrust when landing on the runway, noise emissions when travelling to and from the runway and also when they are using auxiliary power. Another source of ground noise is engine testing.

This document is designed to help residents understand the different types of ground noise at Birmingham Airport and how the Airport reduces and mitigates the impact where possible

## Aircraft using Auxiliary Power Units

Auxiliary Power Units (APU's) are small jet engines typically fitted in the tail of an aircraft that provide energy for functions other than propulsion. They are electric generators that power the system on an aircraft when the main engines are off.

Where possible, the use of Auxiliary Power Units is minimised through the use of Fixed Electrical Ground Power Units by aircraft. The use of Fixed Electrical Ground Power is incentivised at Birmingham Airport to encourage Airlines to make use of it. The APU typically powers lighting and air-conditioning in the cabin.

The use of Fixed Electrical Ground Power can help to reduce both noise and carbon emissions from aircraft.

## Engine Ground Running

Engine ground running, or engine testing, is required following essential maintenance to ensure an aircraft can be safely returned to service and only takes place when absolutely necessary.

There are two types of engine testing carried out at Birmingham Airport known as idle and full power tests.

## Idle Power Engine Ground Runs

Idle power ground runs may take place on the stand where an aircraft is parked. In 2009, Solihull Metropolitan Borough Council (MBC) approved Idle Engine Ground Running on all stands with the exemption of the 80's stands during the night. Idle power ground runs typically take place for purposes such as leak checks following minor maintenance.



## Full Power Engine Ground Runs

Full power engine ground runs may only take place in set locations with prior written permission from the Airfield Duty Manager. During the night-time (2300-0600) there is a ban on full power engine ground running. Full power engine ground runs can be expected to take place when an aircraft has undergone major maintenance such as a full engine change.

This is done alongside meeting operational needs, and restrictions. that mean full power engine ground runs can only take place between 06:00 and 23:00 (Monday to Saturday), 08:00 until 10:30 and then 12:30 until 23:00 on Sundays.

The number of full power engine ground runs that are approved are reported to the Airport Consultative Committee and are also audited by the Solihull Metropolitan Borough Council's Airport Monitoring Officer.

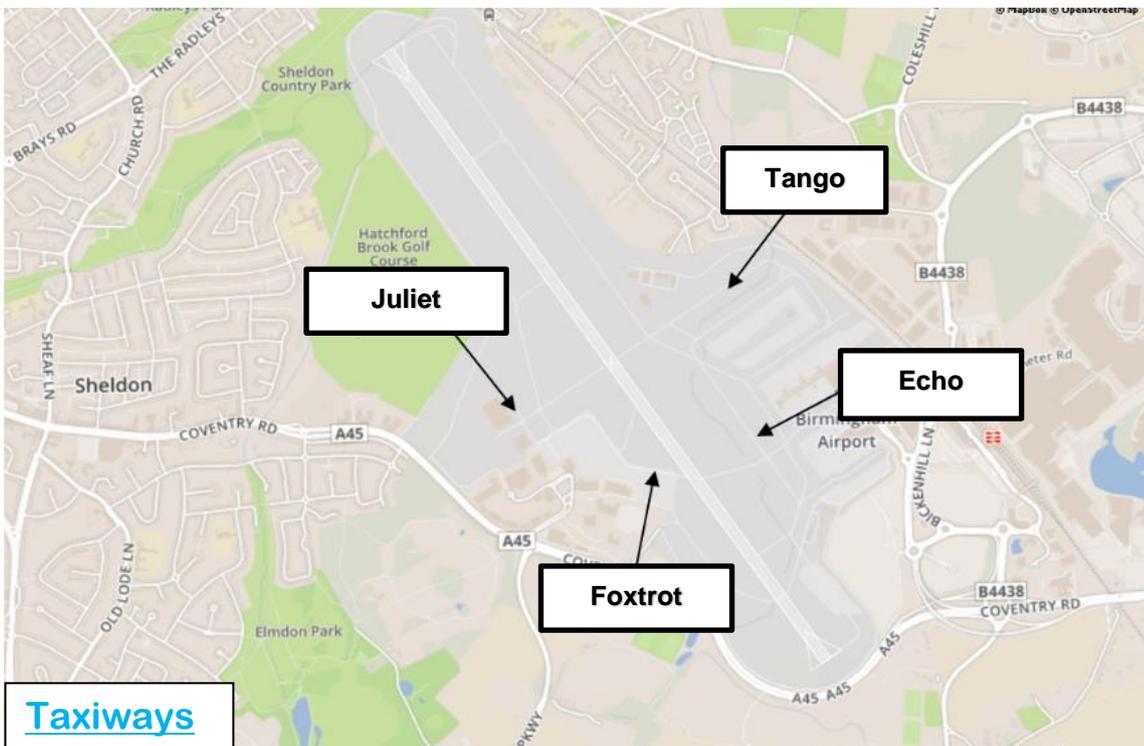
To minimise disturbance from engine testing, we operate an 'Engine Ground Running Policy' which specifies locations that create the least noise disturbance to local residents.

Taxiway	All Aircraft (primary sites)	
		Night 2300-0600 (-0800 on Sundays)
Echo	Not permitted	Full power
Juliette	Not permitted	Full power

Taxiway	<b>All Aircraft (contingency sites)</b>	
	Night 2300-0600 (-0800 on Sundays)	Day 0601-2259
Foxtrot	Not permitted	Full power

Taxiway	<b>All Aircraft (essential use only)</b>	
	Night 2000-0700 (-0800 on Sundays)	Day 0701-2000
Tango	Not permitted	Full power

Taxiway Tango is only used for engine ground running when absolutely necessary with specific approval from the Airfield Duty Manager (ADM). The utilisation of taxiway Tango is reported to the Airport Consultative Committee on a quarterly basis.



## Reverse Thrust

Once an aircraft has landed reverse thrust may on occasions be applied in order to slow the aircraft down whilst on the runway. As a result, noise levels emitted from the aircraft may be increased. Reverse thrust is often used in wet and rainy conditions for safety reasons.

At Birmingham Airport we understand the sensitivity of ground noise during the night. We therefore discourage the use of reverse thrust between 2300 – 0700. However as previously noted aircraft may still need to use reverse thrust during these hours for safety reasons.

# Aircraft taxiing

When aircraft are on the ground, taxiing to and from stands engine noise can sometimes be audible to those communities located close the Airports perimeter. Birmingham Airport works closely with its Airline Partners to help minimise the impact of taxiing aircraft and as such employs on airfield initiatives such as single engine taxiing.

Single engine taxiing refers to aircraft using one engine to taxi to and from the runway. This helps to reduce noise emissions and also reduces fuel burn.

# Contacting the Sustainability Team

We hope that this document has helped to explain how aircraft operate at Birmingham Airport and addressed any concerns or queries that you may have. However, should you require further information please contact the Sustainability Team via the form available at the link below:

<https://www.birminghamairport.co.uk/community-complaint>

**Sustainability Team**  
**Birmingham Airport**  
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**[www.birminghamairport.co.uk](http://www.birminghamairport.co.uk)**

